

caBIG Laboratory Interface Module (caLAB?) (caTRIAL Lab Interface?)

Draft Specification (very preliminary)

1. Assumptions
 - a. Our system will need to take lab test data from multiple different lab systems. Some may have an HL7 interface, some will not (i.e., must be hand entered – implies the need for a data entry interface). Each lab system, including external labs without a lab interface, should be distinguished by a lab ID.
 - b. Each lab system will have its own defined normal range for each test. Normal ranges are usually dependent on age and gender. The normal range for a particular test can be different between different labs.
 - c. The normal range for a given lab, test, gender and age can change over time. Some labs can export their normal range definitions, some cannot.
 - d. Lab tests can be grouped into batteries (typically defined by the lab system). Some lab systems (e.g., Sunquest) code a battery as a test, thus a flag needs to be used to distinguish between a test code that represents a battery and one that represents a single test.
2. First Draft of Data Structure
 - a. See ER Diagram
3. Lab-to-toxicity system
 - a. Overnight batch job (or real time?)
 - b. Will add a record to a toxicity table when a lab value indicates a CTC-gradable toxicity
 - c. Only for specified lab IDs (i.e., those with a direct download interface)
 - d. Only between treatment start date and “30 days after off-study date”.
 - e. If there are multiple lab records for the same test in the same day, only make one record in the toxicity table – pick the highest grade.